

IN THE CLAIMS:

Please amend claims 16-21, 23, and 27 as follows:

1. (Previously Presented) A magnetic disk drive system which is able to write data on and read the data from a rotating magnetic disk by a write head and a read head respectively disposed at a distance from each other, comprising:

a detecting unit which detects a position of the read head at the timing when the data is written with the write head and a position of the read head at the timing when the data is read with the read head; and

a head-distance measuring unit which computes the distance based on the position detected by the detecting unit.

2. (Previously Presented) The magnetic disk drive system of claim 1, wherein the head-distance measuring unit computes said distance based on the position of the read head at the timing when said data is written with the write head and the position of the read head at the timing when said data is read with the read head.

3. (Previously Presented) The magnetic disk drive system of claim 1 or claim 2, wherein the write head writes the data for distance measurement in the position at a distance from the servo information in a sector, and the head-distance measuring unit computes said distance based on the position where the data for distance measurement has been written.

4. (Original) The magnetic disk drive system of claim 3, wherein the data for distance measurement is written in all of the sectors of said track at the same write timing and said distance is measured at said sectors.

5. (Original) The magnetic disk drive system of claim 3, wherein the data for distance measurement is written in a plurality of selected sectors on said track at the same write timing and said distance is measured at said sectors.

6. (Previously Presented) The magnetic disk drive system of claim 5, wherein the data for distance measurement is written in the sectors of all of the tracks of said disk at the same write timing and said distance is measured at said sectors.

7. (Previously Presented) The magnetic disk drive system of claim 5, wherein the data for distance measurement is written in the sectors of a plurality of the tracks selected of said disk at the same write timing, and said distance is measured at said sectors.

8. (Original) The magnetic disk drive system of claim 3, wherein, when said distance increases in the radial direction of said disk, the number of the sectors in which the data for distance measurement is written are increased per track.

9. (Previously Presented) The magnetic disk drive system of claim 3, wherein the data for distance measurement is written in a position predetermined with reference to said servo information.

10. (Original) The magnetic disk drive system claim 9, wherein the data for distance measurement is written at the write frequency of said servo information.

11. (Original) The magnetic disk drive system of claim 9, wherein the data for distance measurement is written at the write frequency of the data written in the data area of said disk.

12. (Previously Presented) The magnetic disk drive system of claim 3, wherein the head-distance measuring unit obtains the position of the read head at the time when reading the written data for distance measurement, and computes said distance.

13. (Original) The magnetic disk drive system of claim 12, wherein said position of the read head is detected with reference to said servo information.

14. (Original) The magnetic disk drive system of claim 13, wherein said position of the read head is detected by incrementing the read timing of the read head sequentially from the position predetermined with reference to said servo information.

15. (Withdrawn) The magnetic disk drive system of claim 13, wherein said position of the read head is detected by decrementing the read timing of the read head sequentially from the position predetermined with reference to said servo information.

16. (Currently Amended) The magnetic disk drive system of claim 13, wherein said position of the read head is detected by renewing the read timing of the read head while repeating ~~the~~an increment and ~~the~~a decrement of the read timing of the read head alternately centering the position predetermined with reference to said servo information.

17. (Currently Amended) The magnetic disk drive system of claim 13, wherein said position of the read head is detected by including ~~the~~an end position of the data for distance measurement in ~~the~~a search window opened at the read timing of the read head.

18. (Currently Amended) The magnetic disk drive system of claim 17, wherein said position of the read head is determined based on ~~the~~a largest one in a plurality of said read timings corresponding to a plurality of said search windows in which said end position is included.

19. (Currently Amended) The magnetic disk drive system of claim 13, wherein the read head performs ~~the~~a read operation at ~~the~~a same read timing for ~~the~~a plurality of ~~said~~ sectors in which the data for distance measurement has been written.

20. (Currently Amended) The magnetic disk drive system of claim 1 or claim 2, wherein a plurality of positions, are selected where said ~~distances are~~ distance is measured, in the radial direction of the disk, ~~are selected~~, and said ~~distances~~, ~~which~~that are not measured, in relation to ~~the~~ other positions, are determined by interpolation based on said ~~distances measured in correspondence with~~ measurement of said plurality of positions.

21. (Currently Amended) The magnetic disk drive system of claim 20, wherein a individual ones of said plurality of positions ~~where said distances are~~ ~~measured~~ are selected at regular intervals.

22. (Previously Presented) The magnetic disk drive system of claim 1 or claim 2, wherein the distance measured by the head-distance measuring unit is stored.

23. (Currently Amended) The magnetic disk drive system of claim 22, wherein the distance measured by the head-distance measuring unit is stored in ~~the~~an internal memory of the system.

24. (Previously Presented) The magnetic disk drive system of claim 22, wherein the distance measured by the head-distance measuring unit is stored in said disk.

25. (Previously Presented) The magnetic disk drive system of claim 22, wherein said distance is measured and stored when the power of the system is turned on.

26. (Previously Presented) The magnetic disk drive system of claim 22, wherein said distance is read out when the power of the system is turned on.

27. (Currently Amended) The magnetic disk drive system of claim 22, wherein when data is written on said disk, the write timing of the write head is determined by adding said distance to the a position where the data is written.